

IN THE CLAIMS:

Claim 1 (Currently Amended): An image pickup device comprising:

a pair of first and second substrates facing each other with a vacuum space interposed therebetween, the second substrate being transparent; and

a plurality of electron-emitting devices provided over said first substrate on a side of the vacuum space ~~and a photoconductive layer provided over said second substrate,~~

said electron-emitting devices each comprising[[:]]:

an insulating layer deposited over an electron source layer which is formed over an ohmic electrode; and

a metal thin film electrode deposited over said insulating layer, wherein said insulating layer and said metal thin film electrode include an island region as an electron-emitting section in which film thicknesses thereof are gradually reduced toward said electron source layer; and

a photoconductive layer provided over said second substrate on a side of the vacuum space to photoelectrically convert an incident light passing through the second substrate into an electric signal.

Claim 2 (Original): An image pickup device as claimed in claim 1 wherein said insulating layer is made of a dielectric material and has a film thickness of 50 nm or greater in an area other than said island region.

Claim 3 (Original): An image pickup device as claimed in claim 1 wherein said metal thin film electrode terminates over said insulating layer within said island region.

Claim 4 (Original): An image pickup device as claimed in claim 1 wherein said insulating layer terminates over said electron source layer within said island region.

Claim 5 (Original): An image pickup device as claimed in claim 1 wherein said island region is a recess on a flat surface of said metal thin film electrode.

Claim 6 (Original): An image pickup device as claimed in claim 1 wherein said insulating layer and said metal thin film electrode are deposited by one of a physical deposition method and a chemical deposition method.

Claim 7 (Original): An image pickup device as claimed in claim 1 wherein bus lines are formed over a plurality of said metal thin film electrodes, said ohmic electrodes and said bus lines being stripe-shaped electrodes arranged in directions orthogonal to each other.

Claim 8 (Original): An image pickup device as claimed in claim 1, the device further comprises a reverse-tapered block within each of said island regions.